

# City of Woburn, Massachusetts Law Department

Elagy

City Hall 10 Common Street Woburn, MA 01801 Tel (781) 932-4425 Fax (781) 932-4428

JAMES E. FELD Assistant City Solicitor

September 7, 2004

Case Control Unit
Surface Transportation Board
1925 K Street N.W.
Washington, DC 20423

ATTN: Ms. Phillis Johnson-Ball

Re: Environmental Assessment For New England Transrail, LLC Finance Docket Number 34391

Dear Ms. Johnson-Ball:

Enclosed please find one original copy of the City of Woburn, Massachusetts Environmental Assessment of New England Transrail. I thank you in advance for your anticipated cooperation regarding this matter.

Very truly yours

Please feel free to contact this office should you have any questions or concerns.

Thomas W. Lawton

TWL/b

cc: John C. Curran, Mayor John Ciriello, Alderman Ward 6

# Before the



# SURFACE TRANSPORTATION BOARD

# Finance Docket No. 34391

# NEW ENGLAND TRANSRAIL, LLC, d/b/a WILMINGTON AND WOBURN AND WOBURN TERMINAL RAILROAD CO. CONSTRUCTION, ACOUISITION, AND OPERATION EXEMPTION

## **ENVIRONMENTAL ASSESSMENT**

The City of Woburn in 1979 shut down two municipal drinking water wells, G and H, which drew water from the aquifer underneath the Aberjona River. These wells were shut down, and remain so, due to the presence of carcinogens in the domestic water supply. Further investigation revealed that the presence of contamination was widespread.

These events formed the basis of the novel A Civil Action by Johnathan Harr (1986), Vintage Publications which detailed the human loss of Woburn residents from the tainted water. In 1983 the area to the north of G and H wells, known as the Industriplex was identified as a Superfund site. The remediation work on this site has been nothing short of extraordinary. The Superfund site is just hundreds of yards south from the Olin site and remedial work continues to this very day. Twenty years have passed and testing continues to this very day.

In the spring of 2002 the E.P.A. announced a plan to merge and expand the G and H well site and the Superfund site. This expansion was part of an effort to test water and soil samples from the Aberjona River to "evaluate the nature and extent of contamination and assess its potential threat to human health and the environment". The map on page one of Exhibit 1 depicts the "Industriplex and Wells G and H Superfund Site Study Areas"; this study area is contiguous to the Olin site. In addition thereto the "North Pond", which is a recent study addition to the Olin site, (Exhibit 2) predominately is located in Woburn and is a part of the Industriplex and \Wells G and H Superfund Site Study Area. This expansion of the Industriplex and Wells G and H Superfund Site Study area is an obvious decision by the E.P.A. to locate additional sources and determine the extent and nature of contamination. The fact that the North Pond is an area that both Olin and the E.P.A. have identified as a contamination source is indicative of the expansion of contamination from both sites.

In response to comments from the Town of Wilmington (Exhibit D), question #2, the applicant relies on findings of GEl Consultants Inc. "As summarized in documents and reports submitted to MADEP in accordance with the Massachusetts Contingency Plan it was determined that "recharge to the groundwater at the property contributes principally to the Aberjona River Drainage Basin". While this fact addresses the legitimate concerns of the officials of the Town of Wilmington it does nothing to placate the greater concerns

of the City of Woburn. It needs to be determined whether the ground water from the Olin site is flowing towards the Aberjona River in Woburn. It is the position of the City of Woburn that NDMA tainted water may be entering the city's groundwater. This contention is buttressed by the Environmental Assessment submitted by Transrail.

"Historically, the Town of Wilmington obtained most of its drinking water from groundwater supply wells within the Ipswich River Drainage Basin and specifically the Maple Meadow Brook Aquifer (MMBA), which is located west of the Olin property. Several drinking water wells in the Wilmington area have been found to be contaminated due to past migration of contaminants from the Olin property. The use of water supply wells in the MMBA was suspended in March 2003, due to the discovery of a contaminant linked to the historic release of large quantities of industrial wastewater at the Olin property. Wilmington currently receives its water supply from the Massachusetts Water Resources Authority. The site of the proposed Transrail use is located in the Town of Wilmington Groundwater Protection District (GWPD). The GWPD established bylaws detailing permitted uses within the area. Because the Proposed action is on property partially located within the mapped GWPD, the Applicant would not transfer or handle any commodities that are prohibited in the GWPD, Thus, SEA determined that the Proposed Action would not have an adverse impact on drinking water sources within the MMBA" and has decreased the volume of contaminated groundwater discharge into surface drainage areas. It is unclear what percentage of the contaminated groundwater is not being contained but from the City's perspective any amount is unacceptable.

The City of Woburn further argues that with the cessation of five municipal wells in Wilmington, this condition may well be detrimental to the City. If a substantial amount of water is no longer being drawn from the aquifer, might a corresponding amount of water now be flowing towards the Aberjona River Basin? Might the material (NDMA) detected in the water at the Wilmington Municipal Wells now be migrating towards \Woburn with the NDMA contaminants present? The letter of May 9, 2003 from the MWRA confirms the existence of the contaminant in the well water. (Exhibit 3)

In the Conditional Approval letter from the Massachusetts D.E.P. dated April 29, 2003 (Exhibit 4) the proposed scope of work on the "North Pond" is articulated. It is obvious that the drainage ditch which traversed from the Olin property more than likely contains contaminants that were found on the Olin property. The report the D.E.P. on page two under Conditional Approval opines, "Data, along with historical groundwater information from the study area, must be used to determine if groundwater contamination is migrating in shallow and deep groundwater beyond the East Ditch toward the Southeast". This area is currently part of the on-going Industri-plex and \Wells H and H Superfund Site Study area.

Footnote 16 of the Environmental Report of Transrail concerns the presence of NDMA in the municipal drinking water wells which were taken off line when the presence of the carcinogen was detected. This discovery occurred some years after the Olin site was identified as contaminated.

"NDMA is a carcinogen. Since detection of NDMA in the groundwater on the Olin property, phase 11 assessment activities have re-commenced. It should be noted that the original Focused Risk Assessment was completed prior to the detection of NDMA and

risks associated with this contaminant were not evaluated. Evaluation of potential Imminent Hazards associated with the presence of NDMA in various media on and off the Olin property was completed as part of an Immediate Response Action (IRA). No imminent hazards associated with NDMA were identified for receptors on or off the Olin property. The USEPA and DEP are completing a contaminant of concern study, that involves analysis of samples to determine the presence or absence of an expanded list of analytes (chemical compounds). The purpose of this study is to identify any additional contaminants that might not have been analyzed for during the earlier portions of the Phase II Comprehensive Site Assessment."

The City of Woburn poses the question if this known carcinogen escaped detection for years while an environment clean up was being contemplated and had proceeded for a number of years is, it not premature to propose a new use on land what may require additional testing? The USEPA and DEP are completing studies, why would authorities consider re-use of property when the nature and extent of the contamination remains unknown, the studies are still incomplete.

This further accentuates the need for further environmental study. The City of Woburn has legitimate concerns whether the NDMA in the groundwater in Wilmington has begun to migrate towards Woburn.

Recently the Massachusetts Department of Environmental Protection issued on July 2, 2003, a notice in regards to Tier 1A Disposal Sites. (Exhibit 2) This notice was in effect announcing that the vast majority of these sites would no longer receive comprehensive monitoring. However, due to what the City of Woburn would argue is the very serious and extensive nature of the contamination of the Olin site the department has elected to continue the present aggressive pattern of oversight. The notice provides in part, "The purpose of this letter is to provide you with that written notice and specify that all activities completed at this site will still require oversight and approval by the department". The City of Woburn argues that this is indicative that the department regards this site much more significant than other comparable Tier 1A sites.

On Saturday August 24, 2004 the Lowell Sun reported that the state was contemplating transferring oversight to the affected property to the E.P.A. According to the article, the state is proposing to transfer Chemical site to the federal Environmental Protection Agency, a move that could land the site on the Superfund National Priorities List." It is the position of the City of Woburn that the entire area should be grouped into a comprehensive site to more effectively monitor and remediate the extensive and quite possibly still migrating contamination. Surely if the MADEP considered this matter drawing to a final outcome they would not entertain transferring jurisdiction.

It is the position of the City of Woburn that a far more extensive environmental report be conducted to determine the advisability of permitting any entity on to the Olin property to begin construction or allow any disturbance to the land. The City of Woburn had endured over twenty years of capping and testing at the Superfund Site because of the presence of contaminants. The mere presence of contaminants to the immediate area north of the Superfund Site and contiguous to the now suspected contaminated North Pond at the Olin Site should preclude any proposed use at the Olin property, let alone a potentially very hazardous use. Just because Olin has initiated environmental clean-up of

the property which they were obviously obligated to do does not mean that their conduct of the past twenty years should be rewarded by allowing this proposed use and eventual sale of the property.

The City of Woburn respectfully argues that the intentional omission of any and all references to the Superfund Site whose northernmost border lies within several hundred yards of the Olin property is a critical intentional omission. The Aberjona River which collects surface water from most if not all of the areas surrounding and including the Olin property. It appears that the "so called" North pond is an area that is already in the merged Superfund Site and is being evaluated by Olin under the direction and approval of the D.E.P. The City of Woburn argues that no development or construction should occur on that Olin Property site until the cause of the presence of NDMA in the Wilmington municipal well field is ascertained. The City of Woburn argues further that cessation of the five municipal wells may have again changed the migratory pattern of the contaminants possibly to the detriment of the City of Woburn.

# TRAFFIC IMPACTS

As proposed the environmental impacts on the City of Woburn will be most significantly be increased truelx traffic and associated impacts. There are two major interstate highways within a relatively short distance from the proposed site. Chapter 3 <a href="Mileson: Affected Environment">Affected Environment</a> considers the environmental impacts on the local roadway infrastructure. Table 3.2 projects increases in three intersections which will bear the brunt of the increased truck traffic. Two of the intersections currently are graded "F" under level of service (LOS), "A" being the highest grade and "F" the lowest grade. Thus two of the intersections are already performing at unacceptable levels. Yet in Chapter 4, Environmental Impacts the report concludes the "Proposed Action would not result in significant impacts on local or regional transportation." The City of Woburn argues that this is due to the feet that the affected intersections could not be downgraded because they are currently graded at the worst level.

The City of Woburn in a prior submittal to the surface transportation Boavel voiced an objection to this project because of anticipated increases in truck traffic on Route 38. The applicant proposes to instruct all "customers" that their "drivers must approach/depart the reload facility from/ to the east, and not to use Route 38 to the west, except for local deliveries."

The City of Woburn argues that this type oversight is inadequate and that during heavy traffic periods trucks will use Route 38 when their destination is southerly. It also provides an escape for anyone who has a local delivery.

The effects on the local road system is also inadequate because the consequences of this proposed use in the I-93 and I-95 intersection are omitted. This interstate intersection carries the highest traffic in the state and is currently being studied for proposed expansion. This is due to the fact that the current interchange is dangerous and cannot safely maintain the volume of traffic which currently backs-up the entrance and exit ramps. This condition creates safety hazards which are well documented. The failure to factor the proposed increase on the interstate interchange is an omission of grave consequence. The City of Woburn urges the applicant conduct farther traffic

studies concentrating on the impact the increased truck traffic would have on the interstate interchange located in Woburn.

# CONCLUSION

This proposed use is in fact premature. Since detection of NDMA did not occur for years while remedial contamination work ensured the City of Woburn urges caution be employed. This is an extremely complex site which should undergo more extensive testing prior to any new use being established. The truck traffic impacts alone are sufficient to warrant further environmental review. The traffic analysis did not study any impacts of interstates I-93 and I-95 and their respective interchanges which are now to be insufficient and dangerous.

For all these reasons the City of Woburn urges a more comprehensive environmental assessment be performed. The comment that is being submitted is within the extension period ending September 10, 2004.

CITY OF WOBURN,

By its Attorney

Thomas W. Lawton, BBO#633418

City Hall - 10 Common Street

Woburn, MA 01801 (781) 932-4425



# Aberjona River

Industri-Plex and Wells G & H Superfund Sites, Woburn, MA

Spring 2002

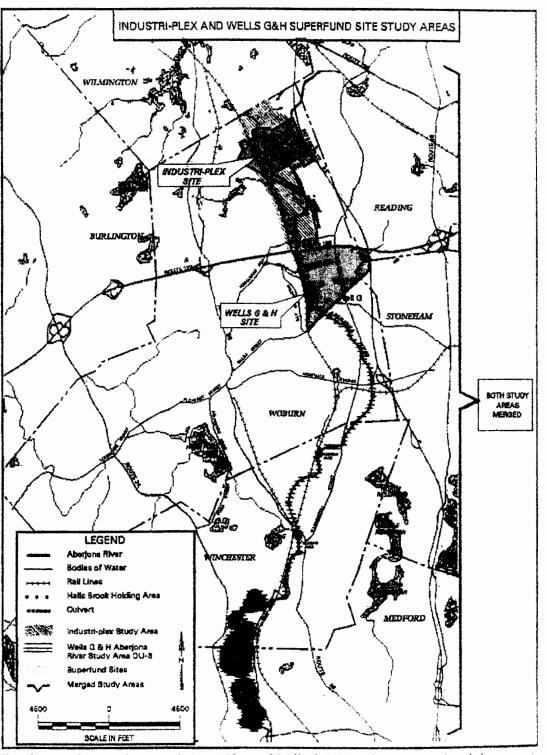
**EXHIBIT** 

# EPA Merges Two Aberjona River Studies

The Industri-Plex and Wells G&H Superfund Sites require two separate studies. of the Aberlona River to evaluate the nature and extent of contamination and assess its potential threat to human health and the environment. The Industri-Plex Study Area, illustrated on the map with red hash lines. investigates the Halis Brook Holding Area and a portion of the upper reach of the Aberiona River; and the Wells G&H Aberiona River Study Area, Illustrated on the map with green hash lines, investigates the lower reach of the Aberiona River. EPA plans to merge theses studies into one, which will provide a more efficient and cost effective approach to managing the investigation of the Aberjona River.

The Aberjona River flows north to south from it's headwaters in Reading through the Industri-Plex Superfund site and along Commerce Way and then merges with the Halis Brook Holding Area at Mishawum Road in Woburn. The River then proceeds under Route 128,

continued on Jace 6



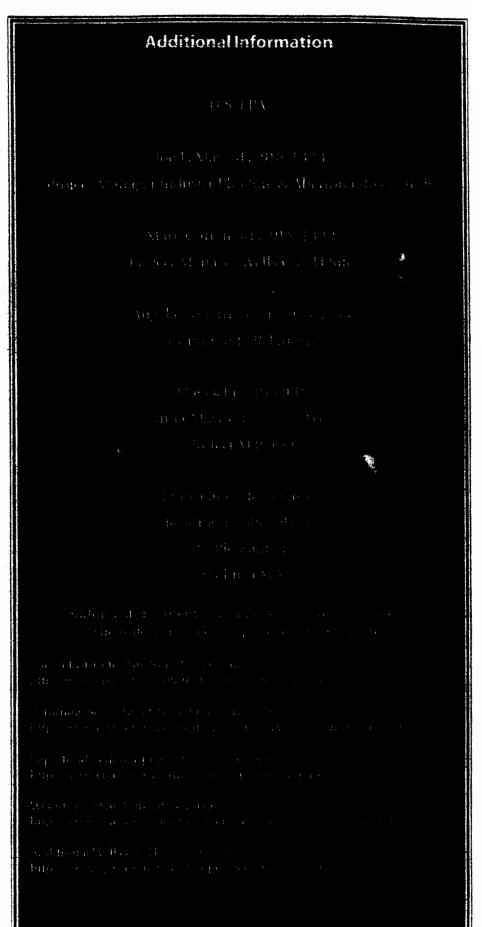
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through the Wells G & H Superfund site and continues south until it discharges into the Mystic Lakes in Winchester.

As part of the investigation. EPA has been studying the levels and types of contaminants that may be present in the river and how the contaminants may be migrating.

In addition to identifying any contamination problems, the study will evaluate whether cleanup along the river is needed based upon contamination levels which pose an unacceptable risk to people or the environment. Ultimately, any cleanup that is required will be accomplished under one comprehensive plan. EPA expects to complete the data collection and risk assessment reports by the summer of 2002. Once completed, EPA will schedule a public information meeting.





Governor

KERRY HEALEY Lieutenant Governor

# COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIR DEPARTMENT OF ENVIRONMENTAL PROTECTION Metropolitan Boston - Northeast Regional Office

ELLEN ROY HERZFELDER

EDWARD KUNCE Acting Commissioner

**EXHIBIT** 

Secretary

# **APRIL 29, 2003**

Olin Corporation P.O. Box 248 1186 Lower River Road, NW Charleston, TN 37310 ATTN: Stephen Morrow

RE: Wilmington Olin Chemical 51 Eames Street RTN 3-0471 North Pond Area Investigation: Part I; Conditional Approval of Part II Scope of Work

Dear Mr. Morrow:

On December 16, 2002 the Department of Environmental Protection (DEP) received a report entitled "North Pond Study Area Investigation: Part I." The report was prepared on behalf of the Olin Corporation (Olin) by GEI Consultants, Inc. (GEI), and was reviewed and submitted by Margret Hanley, the Licensed Site Professional of Record. The purpose of the report is to present the results of a historical review of available information, and to present a Scope of Work for the collection of sediment and soil quality data, in order to determine the extent of Olin's contribution to contamination in the North Pond study area.

In accordance with the Public Involvement Plan for this site, the report was placed in the public library and a public comment period ran between February 11, 2003 and April 18, 2003. The public comments are summarized at the end of this letter, and were considered in DEP's conditional approval of this submittal.

# Background

A 1955 aerial photograph included in the Phase II Scope of Work for the East Ditch investigation showed a surface water drainage ditch, which traveled from west to east across the Olin property and discharged into the North Pond. The surface water drainage from the Olin site appears to have discharged into the North Pond via this ditch for a period of time between the late 1950's and the late 1970's. In a letter dated February 1, 2002, DEP required Olin to complete a Scope of Work to determine the extent to which contamination from the Olin property migrated to the North Pond area.

In a letter dated April 5, 2002 Olin proposed to address DEP's concerns in a two-part investigation. In Part I, Olin proposed to confirm the hypothesized migration pathway. In Part II Olin anticipated that additional subsurface investigations would be necessary in the vicinity of the North Pond to document any potential contribution from the Olin site to conditions in this area. The December 2002 report summarizes the results of Part I of this investigation, and presents a scope of work for Part II of this investigation.

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### North Pond Investigation: Part I

The presence or absence of Olin-related contaminants in the North Pond study area could not be established from the review of historical data. However, it was determined that the existence of a Massachusetts Bay Transit Authority culvert and an unnamed ditch provided a hydraulic connection and a contaminant migration pathway between the Olin property and the North Pond that could have existed between 1952 and 1982.

In addition, it was determined that the North Pond may receive groundwater discharge from the direction of the East Ditch and the Olin property. Based on the above information, GEI determined that additional investigation is necessary to assess the nature and extent of contamination that may be due to historical releases at the Olin property.

GEI concluded that compounds that may currently be present in the Unnamed Ditch, and potentially present in shallow sediment in remaining portions of North Pond, are likely due to releases since 1982 from facilities in the area other than the Olin Site. This conclusion was based on the fact that a hydraulic connection from the Olin Property to the North Pond did not exist after 1982.

# North Pond Investigation Part II - Scope of Work

In order to determine the extent of Olin's contribution to contamination in the North Pond study area GEI proposes to conduct a soil and sediment quality sampling program. GEI proposes to collect fill and buried sediment samples from up to three locations within the former areas of North Pond, and one location in the remaining portion of North Pond. In filled areas, samples will be collected continuously from the ground surface to 5 feet below the buried sediment layer, to a maximum depth of 16 feet. In the remaining area of North Pond, samples will be collected continuously from the ground surface to one foot below the buried sediment layer, to a maximum depth of 4 feet.

Samples will be classified to distinguish between underlying soils, sediments, and the material used to fill areas formerly included in the North Pond. Olin will evaluate the feasibility of age dating the sediments using radiochemical techniques, if a well-defined layer of sediment is observed in each boring.

Up to four samples that are determined to include historical sediments and one shallow sediment sample from the remaining portions of the North Pond will be analyzed for volatile organic compounds including trimethylpentenes (USEPA 8260B), semivolatile organic compounds (USEPA 8270C), pesticides (USEPA 8081A), herbicides (SW-846-8151A), metals (including antimony, chromium, arsenic, cyanide, total and hexavalent chromium, lead, mercury, and thalium [various methods]), ammonia (SM4500F/Lachat), pH, chloride, and sulfate.

Other activities will also be completed as part of Part II of the North Pond Investigation. At least three samples of the fill that overlies former North Pond sediments will be tested for metals. Samples of soil at each boring location, which are judged to be below or in contact with the sediment layer will be extracted and/or preserved, for future analysis.

GEI will not conduct further investigation in the Unnamed Ditch, unless it is determined that Olin-related contaminants of concern are present in sediment at depth in the North Pond.

GEI will prepare a letter report presenting the results of this evaluation, along with any additional information regarding the source and nature of the material that was used as fill in portions of the North Pond. GEI will seek permission to conduct the sampling activities in the former areas of the North Pond

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from current property owners and from the Woburn Conservation Commission. It is anticipated that sampling can be conducted within 30 days of receiving property access and Conservation Commission approval. A preliminary report presenting the results of the field investigations will be issued within 90 days of completing the fieldwork.

### **Public Comments**

Public comments were received from Dick Patterson, Martha Stevenson, the Woburn Neighborhood Association, and State Representative Carol Donovan. Comments were received verbally from Mr. Patterson and Ms. Stevenson in a meeting at DEP on March 27, 2003. Although a wide variety of concerns related to the entire project were discussed, the main concern regarding the North Pond Investigation was that part of the North Pond used to extend into Wilmington, and both Mr. Patterson and Ms. Stevenson wanted to make sure that the North Pond investigation extended into pertinent areas of Wilmington that could have been impacted from contamination from the Olin property. Public comments from the Woburn Neighborhood Association and Representative Donovan were received by DEP in writing on April 5, 2003 and April 16, 2003, respectively. The main concern of the Woburn Neighborhood Association and Representative Donovan was that the North Pond investigation was being completed in lieu of the East Ditch Investigation.

# **DEP - Response to Public Comments**

The goal of the North Pond investigation is to identify the extent of any contaminants that have migrated from the Olin property to the North Pond either by surface water discharge or groundwater flow. The investigation will include pertinent areas in both Wilmington and Woburn. If necessary, the investigation may even eventually extend to water bodies downstream of the North Pond.

The East Ditch investigation is being completed in addition to the North Pond investigation and is presently underway. The progress of the East Ditch investigation was temporarily delayed due to property access issues with the Massachusetts Bay Transit Authority. The Scope of Work for the East Ditch investigation was completed by GEI consultants on behalf of the Olin Corporation and is dated October 12, 2001. DEP's conditional approval letter is dated February 1, 2002, and in this letter DEP made it clear that the full extent of contamination that may have migrated downstream through the East Ditch and beyond must be delineated.

# **DEP** - Conditional Approval

DEP approves of the Scope of Work for the Part II of the North Pond Investigation subject to the following conditions:

- One of the soil boring locations must be located near where the Unnamed Ditch formerly discharged into the North Pond, because maximum depths of contaminated sediments would be expected to build up at the point where the higher flow velocity water from the Unnamed Ditch entered the low flow velocity water of the North Pond. It should be noted that this location is in Wilmington, and will require the approval of the Wilmington Conservation Commission.
- GEI states that groundwater flow measurements indicate that groundwater flow in the study area
  is southeast from the Olin Site toward the North Pond, yet no groundwater sampling was
  proposed to research potential contaminant transport through the groundwater flow pathway.
  Groundwater samples must be collected from GW-80S, GW-80D, GW-80BR, GW-74S, and
  GW-74D and analyzed for the contaminants of concern related to the Olin site. This data, along

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North Pond Area Investigation: Part I;

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with historical groundwater information from the study area, must be used to determine if groundwater contamination is migrating in shallow and deep groundwater beyond the East Ditch toward the southeast.

• It should be noted that further investigation of the sediments in the Unnamed Ditch will be required if Olin-related contaminants are identified in the North Pond sediments at levels that could pose a significant risk to public health and/or the environment.

A report summarizing the results of this investigation must be submitted to DEP within 4 months of the date of this letter. Please be advised that this submittal date is being established as an Interim Deadline, pursuant to 310 CMR 40.0167.

Your cooperation in this matter is appreciated. If you have any further questions regarding this matter, please contact Christopher Pyott at (978) 661-7739 or at the letterhead address.

Very truly yours,

Christopher Pyott Environmental Analyst

Mismola Enou

Site Management

Stephen Johnson

Section Chief

Site Management

cc via e-mail:

Wilmington Board of Health, Attn: Greg Erickson

Wilmington Water Department, Attn: Mike Woods

DEP/NERO/Water Supply, Attn: Jim Persky DEP/Boston/Legislative Liaison: Marc LaPlante

Sleeman, Hanley & DeNitto, 50 Congress Street, Boston, MA 02109

Attn: Margret Hanley

MACTEC Engineering and Consulting, 107 Audubon Road, Wakefield, MA 01880

Attn: Michael Murphy

Foley, Hoag & Eliot LLP, 155 Seaport Boulevard, Boston, MA 02210

Attn: Laurie Burt

Senator Bruce Tarr, Room 507, State House, Boston, MA 02133

Rep. James Miceli, Room 167, State House, Boston, MA 02133

Rep. Charles Murphy, Room 166, State House, Boston, MA 02133

Rep. Carol Donovan, Room 473-B, State House, Boston, MA 02133

cc via mail:

DEP/Data Management

Kathleen & Winifred Barry, 14 Powder House Circle, Wilmington, MA 01887

Robert Cain, Chairman, Board of Selectmen, 121 Glen Road, Wilmington, MA 01887

Mayor John Curran, City Hall, 10 Common Street, Woburn, MA 01801

Jack Fralick, Board of Health, City Hall, 10 Common Street, Woburn, MA 01801Wilmington Public

Library, 175 Middlesex Avenue, Wilmington, MA 01887

Attn: Olin Site Repository

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May 9, 2003

Frederick Laskey **Executive Director** Massachusetts Water Resources Authority 100 First Avenue Boston, MA 02129

Dear Mr. Laskey:

On April 24, 2003, the MWRA Advisory Board approved the Town of Wilmington's request for a six-month emergency connection to the MWRA Waterworks System. The proponent's request is in response to the loss of five of the nine community drinking water wells to the contaminant N-nitrosodimethylamine (NDMA). While town officials believe they have sufficient capacity to meet current demand, there is concern that the local supply may be insufficient to meet high-demand periods during the summer. The proposal received the approval of the Advisory Board Executive Committee on April 18, 2003. The Advisory Board approved motion is as follows:

To allow the Town of Wilmington (Wilmington) to activate a connection to the MWRA Waterworks System, via the City of Woburn (Woburn), for a six-month period, with a start date to be determined. The connection is subject to the development of an inter-municipal agreement between Wilmington and Woburn that addresses issues of assessment and charges prior to consideration by the MWRA Board of Directors. Advisory Board approval is contingent upon receipt of a letter from Woburn indicating support of the inter-municipal agreement with Wilmington. Average daily demand shall not exceed 1 million gallons per day. Wilmington will abide by the rules stipulated under MWRA Emergency Water Supply Withdrawals (Policy #OP.05), including payment of a 10% surcharge of the MWRA's prevailing rate. If the proponent were to seek water for a second water withdrawal period, MWRA shall also assess an asset value contribution charge. Rules governing premium charges and asset value contribution are invoked when water is transferred from the MWRA to the applicant community.

The MWRA Advisory Board was provided a faxed copy of the 'Municipal Aid Agreement' (Agreement) between Woburn and Wilmington by MWRA staff on May 8, 2003 (please see attached). Advisory Board staff expect to receive a letter from the City of Woburn indicating support of the inter-municipal agreement with the Town of Wilmington shortly. In the interest of meeting the Board of Directors deadline, I have determined that the Agreement, as presented, satisfies the stipulation within the approved Advisory Board motion that the City of Woburn and the Town of Wilmington develop an inter-municipal agreement that addresses issues of assessment and charges prior to consideration by the MWRA Board of Directors. The Advisory Board respectfully requests that you include this letter as part of the staff summary being considered at the next meeting of the MWRA Board of Directors on May 14, 2003.

Sincerely,

Katherine H. Dunphy, Chairman

MWRA Advisory Board

Hon. John Curran, Mayor of Woburn CC:

Katherine H. Durphy

Michael Caira, Town Manager of Wilmington

Michael Nicoloro, SEA Consultants

Michael Hornbrook, MWRA, Chief Operating Officer Stephen Estes-Smargiassi, MWRA, Director of Planning Pamela Heidell, MWRA, Policy and Planning Manager

Bonnie Hale, MWRA, Assistant to the MWRA Board of Directors



MITT ROMNEY Governor

KERRY HEALEY Lieutenant Governor

# COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIR

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ELLEN ROY HERZFELDER

EDWARD P. KUNCE Acting Commissioner

Secretary

**JULY 2, 2003** 

Olin Corporation P.O. Box 248 Charlestown, TN

Re: RTN 3-0471

Olin Corporation Site 51 Eames Street

Attention: Stephen Morrow

THIS IS AN IMPORTANT NOTICE. CHANGES ARE BEING MADE TO THE MASSACHUSETTS CONTINGENCY PLAN THAT WILL AFFECT THE PERFORMANCE OF RESPONSE ACTIONS AT TIER IA DISPOSAL SITES

Dear Mr. Morrow:

As you know, staff from the Massachusetts Department of Environmental Protection (the Department) have been systematically overseeing and approving cleanup activities at the above referenced site. Such a level of comprehensive oversight has been required at this site pursuant to 310 CMR 40.0550(4)(a) of the Massachusetts Contingency Plan (MCP), due to its designation as a "Tier IA" disposal site.

The purpose of this letter is to advise you of revisions that are being made to the MCP that will change the scope of the Department's involvement at many Tier IA disposal sites. Specifically, effective June 27, 2003, pursuant to the (amended) provisions of 310 CMR 40.0550 (4), Tier IA sites will no longer be required to obtain Department approval of comprehensive response actions, Release Abatement Measures (RAMs), or Downgradient Property Status (DPS) Submittals - unless the Department provides written notice to the contrary. The purpose of this letter is to provide you with that written notice, and specify that all activities completed at this site will still require oversight and approval by the Department.

There are other changes being made to the MCP that may affect cleanup activities at this site. In addition, there are changes being made to 310 CMR 4.00, Timely Action Schedule and Fee Provisions, relative to the assessment of annual compliance fees and other response action fees. You can download a copy of these changes, and the revised MCP, by visiting the BWSC News and Updates web site at http://www.state.ma.us/dep/bwsc/news.htm.

If you have any questions regarding this matter, please contact Christopher Pyott at (617) 654-6654 or at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of the original document is on file at the DEP office listed on the letterhead.

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PHASE II FOCUSED ENVIRONMENTAL RISK CHARACTERIZATION 51 EAMES STREET WILMINGTON, MA RTN: 3-0471

**AUGUST 2004** 

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# 2.0 PROBLEM FORMULATION

Problem formulation is the initial step of the ERC process where the purpose and scope of the assessment are defined. This problem formulation contains a brief discussion concerning site history (Subsection 2.1) and a summary of findings and conclusions of previous ecological assessments relevant to the East Ditch (Subsection 2.2). In addition, this section includes a discussion of the nature and distribution of oil and/or hazardous materials (OHM) (Subsection 2.3), identification of OHM of potential concern (OHMPC) (Subsection 2.4), identification of ecological habitats and receptors (Subsection 2.5), conceptual model development (Subsection 2.6), and the selection of assessment and measurement endpoints (Subsection 2.7).

## 2.1 SITE BACKGROUND

A chemical manufacturing plant formerly operated at the 51 Eames Street Property, with chemicals produced at the former facility including chemical blowing agents, stabilizers, antioxidants, and other chemicals for the rubber and plastics industry (ABB-ES, 1993). Production ceased in 1986 and environmental investigations have been conducted at the property since 1989. The Site is classified as a Tier 1A disposal site under the MCP (MCP, 310 CMR 40.0000).

OHM detected in sediment at the Property has included, but are not limited to, chromium, phthalates, N-nitroso-diphenylamine, oils, and trimethylpentenes. Constituents associated with surface water at the Property have included, but are not limited to ammonia, chromium, calcium, sulfate, chloride, and sodium (ABB-ES, 1997). In addition, flocculent material (floc) has historically been generated in the on-Property ditch system, due to the mixing of low pH groundwater and more neutral surface water in the ditches. The floc consists of a low-density solid that settles on ditch sediments and can be easily resuspended in the water column following disturbance. Previous studies have detected complexed metals, including chromium, aluminum, and iron in the floc.

The ditch system consists of a series of interconnected surface water drainage ditches that are located on and adjacent to the 51 Eames Street property, and includes the On- and Off-Property West Ditch, the South Ditch and the Ephemeral Ditch (located on the Property), and the East Ditch, located immediately east of the Property. Portions of the former On-Property West Ditch were eliminated and replaced with a concrete culvert during remedial activities conducted in 2002. Surface water in the remaining portions of the Off-Property West Ditch flows to the south, discharging to the South Ditch. The South Ditch and Ephemeral Ditch flow to the east, merging at the eastern property boundary before discharging to the East Ditch. The East Ditch, the focus of this evaluation, is discussed in further detail below.

The East Ditch is located within the right-of-way (ROW) of an active commuter rail (Figure 1). Massachusetts Bay Commuter Railroad Company (MBCR) tracks are located immediately east of the ditch. Due to its location within the MBCR ROW, the East Ditch has been subject to regular maintenance activities, including cutting and/or spraying of vegetation and dredging (Wetlands Preservation Inc., 1993). Photos A-1 through A-22 (Appendix A) document conditions in the East Ditch shortly after the MBCR conducted their last ditch maintenance activities in September 2003.

Surface water in the East Ditch flows southerly, from north of Eames Street in Wilmington, eventually discharging to the Aberjona River, south of Interstate 95 in Woburn. The South Ditch discharges to the East Ditch approximately 3/8 mile south of the Eames Street Bridge. Surface water in the East Ditch enters a culvert located just south of the New England Resins & Pigments Facility, and flows underground for approximately 100 yards before resurfacing as the New Boston Street Drainway. Landfill Creek flows from the area of the Woburn Landfill and discharges to the New Boston Street Drainway approximately 300 yards downstream of this point. Contaminated sediments (containing elevated concentrations of arsenic, chromium, lead, and hide residues) were removed from the stretch of the New Boston Street Drainway, extending from the southern limit of East Ditch to the confluence with Landfill Creek as part of remedial actions completed for the Industri-Plex Superfund Site in Woburn (Harding ESE, 2001).

From the confluence with Landfill Creek, surface water flows underground in a culvert for several hundred yards before entering a box culvert located adjacent to the railway and within an electric utility ROW. At this point the flow resurfaces and continues approximately 200 yards through a rip-rapped channel. This channel was also remediated as part of the Industri-Plex remedial activities. Surface water then flows through a wooded area for approximately 100 yards before discharging to Hall's Brook. Hall's Brook flows east, under the railway line, into Halls Brook Holding Area, and eventually discharges to the Aberjona River (Harding ESE, 2001).

The Study Area, which comprises both the East Ditch and New Boston Street Drainway downstream to its confluence with Hall's Brook, was segregated into 3 separate exposure areas as follows:

- ◆ East Ditch
- ♦ Upper New Boston Street Drainway
- ♦ Lower New Boston Street Drainway

In addition, background conditions were established at a location in the East Ditch upgradient of potential Site impacts.